SVCam-EVO

SVCam-EVO Series

Dual GigE Camera in 1, 2, 4 and 8 MegaPixel Versions

The camera is designed to reach high frame rates due to high speed dual GigE (2 Gigabit). It is enclosed in a very compact housing.

Correlated Double Sampling (CDS) and 4 x 14 Bit A/D converters guarantee an excellent signal-to-noise ratio.

The internal FPGA allows different ways to adjust the exposure time and select trigger modes including:

- Synchronization of image capture to an external event (trigger mode)
- "Free running" with maximum frame rate
- Exposure time control via Remote interface or by trigger pulse width
- Longer exposure times under low light level conditions

The family concept of SVCam series (see separate datasheet) allows to upgrade systems in order to meet new specific requirements.

Technical Highlights/Technical Data

- Progressive Scan 4-Tap CCD sensors
- Monochrome and color sensors (Bayer Pattern)
- Various trigger (int./ext./free running) and exposure modes
- Adjustable gain
- Low offset
- Various binning modes
- C-Mount
- Operating temp. range: -10°C (non condensing) to +45°C
- Power supply: 10 – 25 V DC
- Gig-E Vision (Gigabit Ethernet) standard compliant
- DualGigE-Vision interface with max. 240 MB/s Datarate
- Analog Digital Converter (ADC) 14 Bits
- Internal Memory: 128 MB RAM / 8MB Flash + 128 MB Flash
- Optional 8 or 12 Bits transferred
- Area of Interest (AOI)
- White Balance for Color Versions
- Isolated I/O-Concept: 2 x Input (0 - 24 V), 1 x Input RS-422, 2 x Output (24V, 0,3A), 1 x Output RS-422, 1 x Serial RS-232
- Sequence Shutter and enhanced Strobe Functionality
- Prepared for Lens- and Pan/Tilt Unit Control
- SDK for Windows XP/7 (32/64 Bit) and Linux available
- Selectable data rate up to 65 Mhz per Tap
- Outstanding frame rates possible
- SW-Config. tool to control the camera via frame grabber interface

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Scale your vision.

Overview

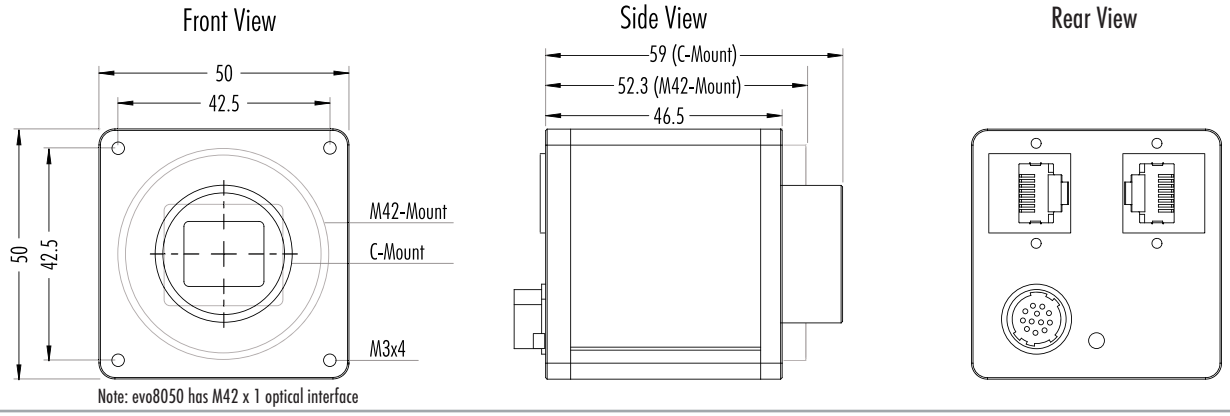
SVCam-EVO	GigE Versions									
Camera Type	evo1050XFLGEA	evo2050XFLGEA	evo2150XFLGEA	evo4050XFLGEA	evo8050XFLGEA	evo1050XFLGEC	evo2050XFLGEC	evo2150XFLGEC	evo4050XFLGEC	evo8050XFLGEC
Resolution	1024 x 1024	1600 x 1200	1920 x 1080	2336 x 1752	3296 x 2472	1024 x 1024	1600 x 1200	1920 x 1080	2336 x 1752	3296 x 2472
Frame Rate	147	85	81.8	41.6	21.8	121	65.4	62.4	33.2	17.5
Pixel (μm^2)	5.5 x 5.5	5.5 x 5.5	5.5 x 5.5	5.5 x 5.5	5.5 x 5.5	5.5 x 5.5	5.5 x 5.5	5.5 x 5.5	5.5 x 5.5	5.5 x 5.5
CCD-Size	1/2"	2/3"	2/3"	1"	22.66 mm	1/2"	2/3"	2/3"	1"	22.66 mm
Exposure Time	6 µs - 2 s	6 µs - 2 s	6 µs - 2 s	6 µs - 2 s	6 µs - 2 s	6 µs - 2 s	6 µs - 2 s	6 µs - 2 s	6 µs - 2 s	6 µs - 2 s
Exposure Time	6 µs - ∞	6 µs - ∞	6 µs - ∞	6 µs - ∞	6 µs - ∞	6 µs - ∞	6 µs - ∞	6 µs - ∞	6 µs - ∞	6 µs - ∞

X = **M**onochrome, X = **C**olorr

Cameras make use of high performance CCD made by **Truesense Imaging, Inc .**®, formerly **Kodak** (USA). For more camera types see our SVCam-EVO product overview.

Dimensions [mm]

GiGE VISION

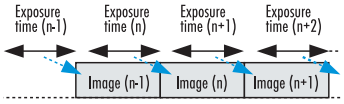


Note: evo8050 has M42 x 1 optical interface

Operation Modes

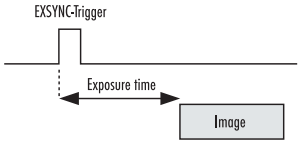
Free Running/Fixed Frequency

In this mode the camera creates all sync signals itself. Camera is connected to PC and will create images immediately.



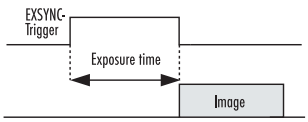
External Trigger, Internal Exposure Control

The camera needs an external trigger to output images. The exposure time is set by the internal logic inside the camera.



External Trigger, External Exposure Control

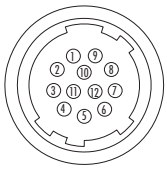
The camera needs an external trigger to output images. The exposure time is determined by the pulse width of the trigger signal and can be changed from frame to frame.



Software Trigger (GigE only)

The PC sends a command to the camera in order to get data. Internal logic is set for the exposure time. Jitter must be observed.

Connector pin-out



1	VIN- (GND)	**7**	OUT1 (open drain max. 24V, 0.3A)
2	VIN+ (10V to 25V DC)	**8**	OUT2 (open drain max. 24V, 0.3A)
3	RXD (RS232)	**9**	IN3+ (RS422)
4	TXD (RS232)	**10**	IN3- (RS422)
5	IN1 (0-24V)	**11**	OUT3+ (RS422)
6	IN2 (0-24V)	**12**	OUT3- (RS422)

Configuration Software

The SVCam cameras come with our "SVCapture"-software, which allows easy interactive setup of all camera parameters. The program runs under Windows XP/7 but also 64 Bit mode. Linux is supported as well. A XML file compliant with the GenICam standard is supplied with the camera. The free SDK and API coming with the camera allows easy integration into an application without involving a frame grabber.

Ordering Guide

Monochrome:	Color:	
evo1050MFLGEA	**evo1050CFLGEA**	(max. 146 Hz / 8 Bit)
evo2050MFLGEA	**evo2050CFLGEA**	(max. 85 Hz / 8 Bit)
evo2150MFLGEA	**evo2150CFLGEA**	(max. 80 Hz / 8 Bit)
evo4050MFLGEA	**evo4050CFLGEA**	(max. 40 Hz / 8 Bit)
evo8050MFLGEA	**evo8050CFLGEA**	(max. 21 Hz / 8 Bit)
evo1050MFLGEC	**evo1050CFLGEC**	(max. 120 Hz / 8 and 12 Bit)
evo2050MFLGEC	**evo2050CFLGEC**	(max. 68 Hz / 8 and 12 Bit)
evo2150MFLGEC	**evo2150CFLGEC**	(max. 64 Hz / 8 and 12 Bit)
evo4050MFLGEC	**evo4050CFLGEC**	(max. 32 Hz / 8 and 12 Bit)
evo8050MFLGEC	**evo8050CFLGEC**	(max. 17 Hz / 8 and 12 Bit)

04.06.2013 - Changes without notification